

REMARKS

As a preliminary matter, Applicants appreciate the Examiner's indication of allowable subject matter contained in claims 12 and 14. In response, Applicants have rewritten these claims in independent form, and therefore request allowance of these claims.

Claims 11 and 13 stand rejected under 35 U.S.C. 102(e) as being anticipated by Saishu et al. (U.S. Patent No. 6,069,600). In response, Applicants amended independent claims 11 and 13 to define a holding period after the data writing process and a holding period after the data erasing process as being substantially the same, and respectfully traverse the rejection as it applies to the amended claims.

Saishu is directed to an active matrix type liquid crystal display. In Saishu, a holding period after the data writing process is much longer than a holding period after the data erasing process. (See col. 9, lns. 46-49 and col. 2, lns. 42-43).

In contrast, amended claims 11 and 13 now recite that a holding period after the data writing process and a holding period after the data erasing process are substantially the same. Advantageously, since both holding periods are substantially the same, it is possible to realize a stable graduation display. Additionally, having substantially the same holding periods prevents image sticking.

When a positive voltage is applied to a liquid crystal in data writing scanning, negative voltage is applied to the liquid crystal in data erasing scanning. Similarly, when a negative voltage is applied to the liquid crystal in the data writing

scanning, positive voltage is applied to liquid crystal in the data erasing scanning. However, since the liquid crystal material of the present invention has a spontaneous polarization, during the holding period after the data writing process and the holding period after the data erasing process, an advantage over the prior art occurs. More specifically, due to the electric response of the spontaneous polarization, charge injected into the liquid crystal during the data writing process and a data erasing process is consumed.

In other words, the voltage applied to the liquid crystal during the data writing process and the data erasing process are substantially the same in magnitude and different in polarity. Thus, the amount of charge injected during the data writing process and the data erasing process are about the same. If the holding period after the data writing process and the holding period after the data erasing process are different in length such as that disclosed by Saishu, then the amount of charge consumption by the spontaneous polarization would differ. This difference causes inconsistency of the charge between the period corresponding to the data writing process and the data holding period after the data writing process, and the period corresponding to the data erasing process and the data holding period after the data erasing process. The inconsistency of charge between periods results in a desired graduation characteristic not being obtained, or the occurrence of image sticking.

Since Saishu does not disclose substantially equal holding periods after data erasing/writing and can not achieve the advantages related to an improved graduation

characteristic, or reduced image sticking, Applicants respectfully request withdrawal of the §102(e) rejection of claims 11 and 13.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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